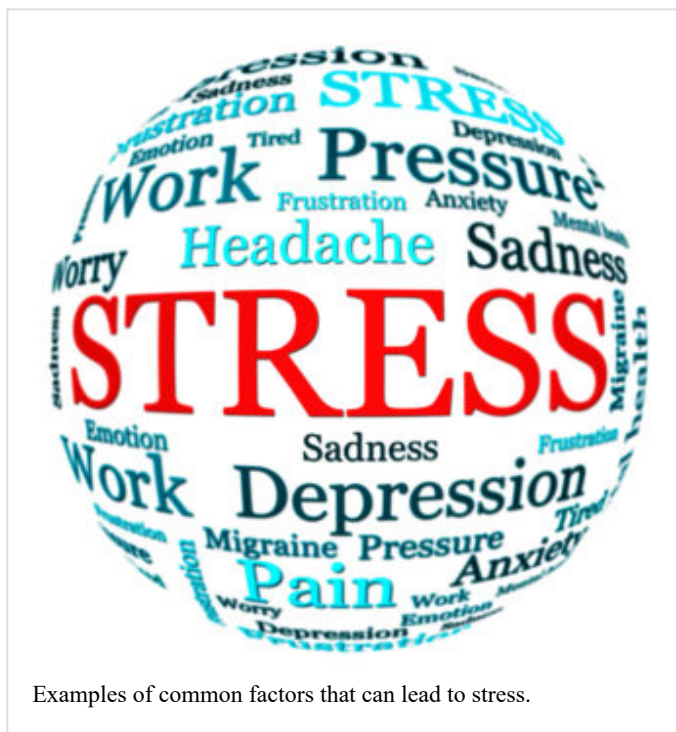


## STRESS MANAGEMENT

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### What is Stress?

Stress is a process in which environmental demands strain an organism's adaptive capacity resulting in both psychological demands as well as biological changes that could place at risk for illness.<sup>1</sup> Things that cause us stress are called stressors. Stress affects young, old, wealthy, and poor. Stress is an everyday occurrence, and everyone must learn to cope with stress. There are three theories regarding stress: environmental stress, emotional stress, and biological stress. Environmental stress emphasizes assessment of environmental situations or experiences that are related to adaptive demands. The psychological stress emphasizes people's evaluations of their ability to cope with situations presented by life experiences. Biological stress emphasizes the physiological systems in the body regulated by both psychological and physical demanding conditions.



Examples of common factors that can lead to stress.

It has been shown in recent studies that most participants said that they had experienced a great deal of stress in the last month. AARP reported that thirty-seven percent of adults over fifty experienced a major, stressful life event in the past year, including the death of a family member, chronic illness, or the loss of a job. People who experience stress may turn to eating, drinking, and smoking more, while sleeping and exercising less. All of these trends tend to have negative consequences on health.

### Stress & the Immune System

Stress can be either positive or negative depending on the type. This could depend on whether or not the stressor is short- or long-term. Short-term stress can actually boost the immune system. In response to short-term stress, the body's immune system prepares to meet and overcome a challenge, such as an adaptive response from injury or infection.

Long-term stress, on the other hand, can cause

negative effects. Too much long-term stress can cause the system to break down if the individual does not have control over the events.

The response to stress varies in every individual. Stressful events can cause a person to be more likely to contract an illness. Many factors must occur to manifest as an illness. Studies have shown that chronic stress exerts a general immunosuppressive effect that suppresses or withholds the body's ability to initiate a prompt, efficient immune reaction. The weakening of immune function is thought to be associated with general strain on the various body parts associated with the production and maintenance of the immune system. Those experiencing chronic stress may become cortisol resistant, which can increase the chance

of becoming sick. The immune system's ability to regulate inflammation predicts who will develop a condition but more importantly it provides an explanation of how stress can promote disease.

## Conditions & Stress

Both short- and long-term conditions can be caused by stress. The common cold can cause stress and stress on the cells of the immune system. Therefore the cells of the immune system are unable to respond properly to battle the condition. Research has also shown that the stress hormone stimulates a preference for foods that are full of sugar, starch, and fat, which is why people are more likely to reach for a candy bar during a stressful day at work. In addition to stress triggering a change in metabolism, the stress response produces a rise in insulin levels and a fall in fat oxidation, which is a dual process that promotes fat storage.

Healing is affected by stress as excess cortisol slows wound healing and lowers effectiveness of medications and vaccinations in children and the elderly. Stress also aggravates the sleep cycle. This can make it harder to fall back to sleep when awoken. As a result, people who have trouble with sleep will find it harder to handle stress in their everyday lives.

Heart disease has been shown to be connected to stress for a long period of time. Studies have shown that cortisol actually changes the texture of white blood cells causing them to attach to blood vessel walls. The key result is plaque, a major factor leading to heart disease.

Depression and mood disorders can also be negatively affected by stress. Stress releases chemicals that affect mood, appetite, sleep, libido, etc. Stomach issues have been linked back to stress because stress can change the balance of bacteria in the gut, causing the immune system to function improperly.

## Additional Resources

The best additional resource is to consult your primary care physician.

Sources:

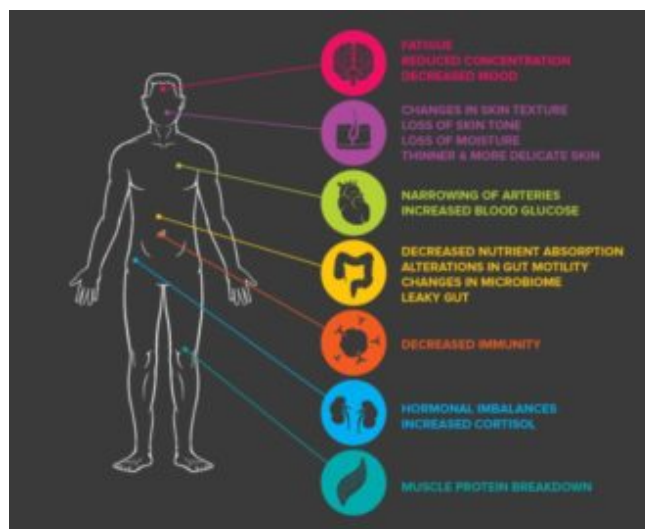
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Conditions resulting from excess stress.

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